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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,235	04/02/2004	Dennis M. Brown	SP03-053	3064
22928	7590	10/31/2005	EXAMINER	
CORNING INCORPORATED			WONG, TINA MEI SENG	
SP-TI-3-1			ART UNIT	PAPER NUMBER
CORNING, NY 14831			2874	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

51c

<b>Office Action Summary</b>	Application No. 10/817,235	Applicant(s) BROWN ET AL.	
	Examiner Tina M. Wong	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office action is responsive to Applicant's response submitted on 09n September 2005. The Examiner has noted the correction of the minor informality in regards to claim 1.

The applicant's arguments have been carefully studied and re-evaluated by the examiner. The arguments advanced therein, in regards to claims 1-8 to Pulido, are persuasive and the rejections based upon prior art made of record in the previous Office Action are withdrawn. During a careful review of the prior art of record in this application, however, it has been discovered that a prior art relied upon in the previous Office Action is still relevant in view of the arguments presented by Applicant. Accordingly, a new rejection is set forth below. This action is **not** made final.

#### ***Claim Objections***

Claim 9 is objected to because of the following informalities: On line 4 of claim 9, the word "grove" appears twice. This word appears to be a typographical error. The Examiner believes the word should read "groove". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA).

In regards to claim 1, AAPA discloses a spool (10) comprising a hub (12) sandwiched between two flanges (14), where at least one of the flanges includes a smoothly curving arcuate fiber groove (15, 20) extending substantially to the outer edge of the flange and the groove being capable of reversing the direction of the fiber (20). (Background of Invention, Figure 1, Figure 2)

But AAPA fails to disclose the fiber groove on the side facing the hub. However, although the placement of the groove is on the opposite side of the flange, facing out from the hub, the groove facing out from the hub performs the same function as the groove facing the hub. By either placement of the groove, the groove is capable of reversing the direction of the fiber. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the groove on the side facing the hub or on the side facing away from the hub, since the placement of the groove in either position performs the same function.

In regards to claims 2-4, AAPA does not explicitly disclose the groove to be at an angle less than 15 degrees, 5 degrees or 3 degrees relative to the tangent line. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to limit the angle to be less than 15 degrees, 5 degrees or 3 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 Furthermore, Applicant does not state in the specification the criticality of any of the claimed angles.

In regards to claim 5, AAPA discloses a plurality of grooves (15, 20), each with a different bend radius, and at least one of the fiber grooves extending to the outer edge of the flange.

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In regards to claim 6, AAPA discloses the grooves to be semicircular and have different radii of curvatures.

In regards to claim 7, AAPA discloses a fiber groove (20) that allows the fiber to reverse in direction so that the fiber leads point in the same direction.

In regards to claim 8, AAPA discloses the flange to include at least two fiber grooves, where the grooves allow the exiting fiber to reverse in direction so that the fiber leads point in the same direction.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,237 to Pulido.

In regards to claim 9, Pulido provides two flanges and a hub, and then assembling the hub and flanges into a spool. But, Pulido fails to disclose trimming the flange preforms to a desired size. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

In regards to claim 10, Pulido discloses winding the fiber around the hub.

In regards to claim 11, Pulido discloses a flange with at least one fiber groove that extends to the outer edge of the flange. However, Pulido fails to disclose trimming the flange preform to form a flange of a specified diameter. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

In regards to claim 12, Pulido fails to disclose the groove to be at an angle less than 5 degrees relative to the tangent line. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to limit the angle to be less than 5 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 Furthermore, Applicant does not state in the specification the criticality of the claimed angle.

#### ***Response to Arguments***

Applicant's arguments, filed 09 September 2005, with respect to claims 2, 9 and 10 have been fully considered and are persuasive. The 35 USC 101 double patenting rejection of claims 2, 9 and 10 have been withdrawn. Claims 10, 20, and 21 of the copending application have been cancelled by the amendment dated 16 August 2005.

Applicant's arguments, filed 09 September 2005, with respect to 1-8 have been fully considered and are persuasive. The rejection of claims 1-8 to Pulido has been withdrawn.

Applicant's arguments, filed 09 September 2005, with respect to 9-12 have been fully considered and are persuasive. The rejection of claims 9-12 to AAPA has been withdrawn.

Applicant's arguments with respect to claims 1-8 to AAPA have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 9-12 to Pulido have been fully considered but they are not persuasive. Applicant argues Pulido fails to disclose trimming the flange to the desired diameter. However, when a flange is produced and made, it must be trimmed and cut in

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order to obtain the correct diameter. Furthermore, the flange can be further trimmed after the initial cutting/trimming in order to ensure the most accurate diameter of the flange.

***Prior Art***

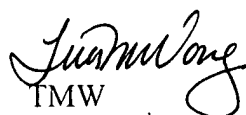
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference A discloses a center hub with slots capable of reversing the direction of optical fibers.

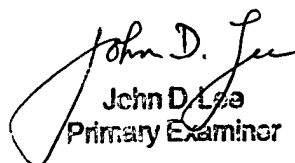
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TMW

  
John D. Lee  
Primary Examiner